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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/763,289	01/23/2004	Kenneth L. Gage	020478	6484

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QUALCOMM INCORPORATED
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EXAMINER	
HUYNH, NAM TRUNG	
ART UNIT	**PAPER NUMBER**
2617	

NOTIFICATION DATE	DELIVERY MODE
08/22/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/763,289	AS	
	Examiner	Art Unit	
	NAM HUYNH	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 April 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-32* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

This office action is in response to amendment filed on 4/9/2008. Of the previously presented claims 1-32, claims 1, 3, 14, 19, 23, 24, 26, 27, 30, 31, and 32 have been amended.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3, 5-10, 12-15, 19-23, and 27-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Siorpaes et al. (US 2005/0080884) (hereinafter Siorpaes).

Regarding claim 1, Siorpaes teaches a method for selecting a wireless device network communication link to a destination host through one of a plurality of available wireless protocol links (wireless communication standards), the method comprising:

selecting a first protocol link from the plurality of available wireless protocol links based on predetermined criteria; (paragraphs 59, 85; link availability test procedures)

establishing a first (TCP/IP) network connection through the first protocol link, wherein the wireless device has a designated IP address; (paragraph 67)

detecting a change in status of the predetermined criteria of the first protocol link; (paragraphs 60, 88)

selecting a second protocol link from the plurality of available wireless protocol links based on the change in status of the predetermined criteria; (paragraphs 70, 100)

establishing a second Transfer Control Protocol/Internet Protocol (TCP/IP) network connection through the second protocol link, using the designated IP address for the wireless device; and (paragraph 100)

terminating the first network connection through the first protocol link, such that the wireless device does not lose network communication with the destination host (paragraphs 67, 106, 107).

Regarding claim 2, Siorpaes teaches the predetermined criteria includes a link quality value (paragraph 88).

Regarding claim 3, Siorpaes teaches the link quality value is measured by a signal strength of the protocol link (paragraph 88).

Regarding claim 5, Siorpaes teaches selecting a first protocol link includes communicating with a first service provider adapted to provide and maintain the first protocol link (paragraphs 134).

Regarding claim 6, Siorpaes teaches selecting a first protocol link includes communicating with a first base unit providing network communication using the first protocol link (figure 2, APs).

Regarding claim 7, Siorpaes teaches establishing a first network connection includes assigning a first network address to the first base unit (paragraph 129).

Regarding claim 8, Siorpaes teaches establishing a first network connection includes assigning a second network address to the wireless device (paragraph 106).

Regarding claim 9, Siorpaes teaches establishing a first network connection includes mapping the second network address to the first network address so that data can be routed to the wireless device through the first base unit (paragraph 100).

Regarding claim 10, Siorpaes teaches the change in status or condition of the first protocol link with respect to the predetermined criteria includes a situation where signal strength of the first protocol link falls below signal strength of the second protocol link (paragraph 88).

Regarding claim 12, Siorpaes teaches selecting a second protocol link includes communicating with a second base unit providing the second protocol link (figure 2).

Regarding claim 13, Siorpaes teaches establishing a second network connection includes assigning a third network address to the second base unit (paragraph 142).

Regarding claim 14, Siorpaes teaches establishing a second network connection includes assigning a second network address to the wireless device, wherein the second network address is the designated IP address for the wireless device (paragraph 143).

Regarding claim 15, Siorpaes teaches establishing a second network connection includes mapping the second network address to the third network address so that data

can be re-routed to the wireless device through the second base unit (paragraphs 142-146).

Regarding claims 19, 27, and 30, the limitations are rejected as applied to claim 1.

Regarding claim 20, Siorpaes teaches a plurality of service providers corresponding to the plurality of wireless protocol base units, wherein the service providers enable wireless network connection to the wireless communication device through the wireless protocol base units (figure 2).

Regarding claim 21, Siorpaes teaches the wireless communication device includes a health monitor for monitoring health of the plurality of wireless protocol links (paragraphs 85-88).

Regarding claim 22, Siorpaes teaches the wireless communication device includes a mobile connection logic for generating a list of prioritized wireless protocol links for replacement of the first wireless protocol link (paragraph 88).

Regarding claim 23, Siorpaes teaches the available protocol links include wireless protocol links with signal strengths above a predetermined level (paragraph 88).

Regarding claim 28, Siorpaes teaches a first memory configured to store data comprising parameters related to the first wireless protocol link (paragraph 88, routing manager).

Regarding claim 29, Siorpaes teaches the mobile connection logic includes:
a second memory configured to store data comprising parameters related to the second

wireless protocol link, such that parameters stored in the second memory are transferred to the first memory when the mobile connection logic determines that the second protocol link is established and verified to be properly operating (paragraph 88, routing manager).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 16-18, 24-26, 31, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Siorpaes et al. (US 2005/0080884) (hereinafter Siorpaes) in view of Dorenbosch et al. (US 2004/0028009) (hereinafter Dorenbosch).

Regarding claims 16-18, 25, 31, and 32, Siorpaes teaches the limitations set forth in claims 1, 19, and 30, but does not explicitly disclose generating a mapping table for mapping the wireless device to the first protocol, updating the mapping table to map

the wireless device to the second protocol, and using a network address translation (NAT) table to route data to/from the wireless device from/to a network site. Dorenbosch discloses a method and apparatus for effecting a seamless handoff between IP connections (title). In the scope of the invention, a gateway provides Network Access Translation of an IP address between a cellular and WLAN network (pages 3, 4, paragraphs 26-28). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the gateway of Siorpaes to include Network Access Translation, as taught by Dorenbosch, in order to substitute address values for application specific data and provide handoff from one IP connection to another.

Regarding claim 24, Dorenbosch teaches a mapping table configured to map wireless protocol links to the wireless communication device.

Regarding claim 26, Dorenbosch teaches that streams are encapsulated with IP address associated with the mobile station (page 4, paragraphs 27, 28).

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Siorpaes et al. (US 2005/0080884) (hereinafter Siorpaes) in view of Jones (US 6,879,600).

Siorpaes teaches the limitations set forth in claim 1, but does not explicitly teach that the predetermined criteria includes a connection fee charged by a service provider of the protocol link. Jones teaches mobile arbitration wherein policies for selecting access networks includes lowest relative cost (column 12, lines 6-21). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was

made to modify the invention of Siorpaes to include service provider fees or cost in selecting a wireless protocol, as taught by Jones, in order to allow subscribers to benefit from reduces service costs.

7. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Siorpaes et al. (US 2005/0080884) (hereinafter Siorpaes) in view of Rawson, III (US 20020078187) (hereinafter Rawson).

Siorpaes teaches the limitations set forth in claim 1, but does not explicitly teach selecting a protocol link and establish a second network connection are performed within a predetermined amount of time allotted for a "liveness" check so that a transition between the first network connection and the second network connection is transparent to the wireless device. Rawson teaches a simple liveness protocol wherein a server determines the liveness with a time period of each target individually (paragraph 49). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Siorpaes, to include a liveness check, as taught by Rawson, in order to determine whether the target is live before switching protocols.

Response to Arguments

8. Applicant's arguments with respect to claims 1-32 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NAM HUYNH whose telephone number is (571)272-5970. The examiner can normally be reached on 8 a.m.-5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/George Eng/
Supervisory Patent Examiner, Art Unit 2617

NTH
8/15/08